CN Milton Logistics Hub

Accidents and Malfunctions Response Plan - Construction

December 3 2021

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Abbreviations

CAN-CISEC	Canadian Certified Inspector of Sediment and Erosion Control
CCC	Community Consultation Committee
CEAA	Canadian Environmental Assessment Act
CH	Conservation Halton
CN	Canadian National Railway Company
CTA	Canadian Transportation Act
DCC	Dufferin Construction Company
DFO	Department of Fisheries and Oceans Canada
ECCC	Environment and Climate Change Canada
EIS	Environmental Impact Statement
EM	Environmental Monitor
EPP	Environmental Protection Plan
ESC	Erosion and Sediment Control
HC	Health Canada
HR	Halton Region
IAAC	Impact Assessment Agency of Canada (formerly Canadian Environmental Assessment Agency)
IR	Information Request
MECP	Ministry of the Environment, Conservation and Parks
MHSTCI	Ministry of Heritage, Sport, Tourism and Culture Industries
NRC	Natural Resources Canada
TSB	Transportation Safety Board

1.0 INTRODUCTION

The Accidents and Malfunctions Response Plan – Construction (A&M Plan - Construction) provides guidance to construction personnel and the critical information necessary to take action in the event of an emergency related to the Milton Logistics Hub Project.

Effective emergency response is about being prepared for an incident, dealing with an incident and how our response is implemented. In the end, the long-term impacts, nature, and severity of an incident will be in part determined by CN's capacity respond and liaise/inform the public, key stakeholders and a variety of external organizations.

This plan identifies, defines, and provides recommended actions for dealing with incidents that could affect the facility identified within the plan and which may adversely affect area(s) outside of the Designated Project Development Area. This plan provides a logical and responsible approach to identifying and responding to incidents.

1.1 DEFINITION OF AN EMERGENCY

An emergency consists of any accident, incident, or act of nature outside of regular CN Operations during construction or operation of a facility. This Plan is designed to be flexible to ensure all likely potential incidents are included. Those identified during the Environmental Assessment process that could occur during construction included hazardous material spills, bulk material spills, fire, traffic accidents, and derailments. Accidents or malfunctions that occur resulting in multiple scenarios, will be handled in a manner that all emergencies are addressed, whether it be simultaneously or sequentially, based on the nature of the emergency.

1.1.1 Dufferin Construction Company Employee Training

Dufferin Construction Company (DCC) will prepare a Construction Health and Safety Plan. They will also continue to work actively with their health and safety partners and external stakeholders to control and, where possible, eliminate the top hazards identified in their Plan. The partnership also promotes compliance and the development of a strong health and safety culture in the workplace.

As part of CN's continuing commitment to further enhance Safety and Security, CN requires all contractors and subcontractors to go through the eRailSafe program. This program ensures that contractors performing work for CN have the necessary credentials and training to work on CN property, and that work is performed in accordance with CN's expectations and safety requirements. At the same time, it provides for enhanced security at CN through the contractor screening process.

DCC will complete employee emergency response training on a regular basis to ensure employee familiarity with this Plan and procedures and responsibilities in the event of an emergency.

Mandatory training associated with this A&M Plan – Construction for DCC and their personnel include:

- eRailSafe Canada registration
- Emergency Response Training
- Site Specific Orientation
- Health and Safety Policy and Procedures
- Weekly Tailgates
- Monthly Toolbox Talks

1.1.2 CN Employee Training

CN's Safety Management System (SMS) is the overall framework for incorporating safety into all daily operations. It is a proactive, comprehensive program designed to minimize risk and continually reduce injuries and accidents. Key groups at CN, such as Mechanical, Engineering, Environment, Dangerous Goods and Transportation, review the program annually and plan additional improvements in safety.

CN will ensure onsite CN employees' complete emergency response training to ensure employee familiarity with this Plan and procedures and responsibilities in the event of an emergency. There are four basic categories of emergency response training for CN personnel depending on their roles:

Level 1 - All personnel who have the potential to use this plan receive CN's on-line Emergency Response Plan Awareness Course. Refresher training shall be of sufficient duration and content so as to continuously demonstrate competency.

Level 2 - All personnel who function in the capacity of an Incident Commander, function as the Senior CN Officer at an emergency, or respond to an emergency, receive CN's Railroad Emergency Response and Incident Command System 100 (ICS 100) and ICS 400 courses. Refresher training shall be of sufficient duration and content so as to continuously demonstrate competency. Level 2 responders shall meet the training requirements outlined in Level 1.

Level 3 - All personnel functioning in a Dangerous Goods Responder (DGR) capacity receive hazardous materials training based on National Fire Protection Association (NFPA) standard 472. Refresher training shall be of sufficient duration and content so as to continuously demonstrate competency. Level 3 responders shall meet the training requirements outlined in Levels 1 and 2.

Level 4 - All personnel functioning in a Dangerous Goods Officer (DGO) capacity receive hazardous materials technician, tank car specialist, highway specialist, incident command, and industrial firefighter training commensurate with National Fire Protection Association (NFPA) standards. Refresher training shall be of sufficient duration and content so as to continuously demonstrate competency. Level 4 responders shall meet the training requirements outlined in Levels 1, 2, and 3.

2.0 HAZARDOUS MATERIAL

Hazardous material is defined as being fuels (diesel, gasoline, propane and compressed gases), lubricants (engine oil, transmission oil, drive train oil, hydraulic oil, gear oil, lubricating grease), coolants (ethylene glycol) and general process chemicals (methanol, paints and solvents) used for the operation and maintenance of equipment.

2.1 HAZARDOUS MATERIAL STORAGE

O. Reg. 347. O. Reg 102, and O. Reg 103 of the Canada Occupational Health and Safety Regulations outlines occupational health and safety measures with regard to hazardous substances used, produced, handled, or stored for use in the workplace in order to prevent accidents, injuries and occupational diseases related to them. The Workplace Hazardous Materials Information System (WHMIS) is Canada's national hazard communication standard. The key elements of the system are hazard classification, cautionary labelling of containers, the provision of (material) safety data sheets ((M)SDSs) and worker education and training programs.

Hazardous materials will be stored during construction according to the Safety Data Sheets (formerly Material Safety Data Sheets) for each type of material being stored on-site.

2.2 PROCEDURES FOR HANDLING AND USE OF HAZARDOUS MATERIAL STORAGE

General safe storage guidelines are provided by the government of Canada and followed by companies operating within the country. These general safe storage guidelines are provided below and will be followed during construction of the Project.

Engineering controls:

- Keep storage areas well ventilated and away from sources of heat and direct sunlight
- Use chemically-resistant structural materials in the storage area and ventilation system (e.g., corrosion-resistant)

Storage Practices:

- Store hazardous materials in areas designated for storage
- Ensure hazardous materials have primary and secondary containment and these are in accordance with appropriate safety procedures and requirements
- Store bulk quantities of combustible and flammable materials in designated areas at least six metres away from the Project’s property line

- Secure cylinders to a wall or rack or in steel cages in an upright position and locked.
- Store empty cylinders in a separate location, clearly marked "empty".
- Protect cylinder bottoms from corrosion by keeping area dry.
- Do Not Store for extended periods of time.
- Use approved containers; be aware of any special venting requirements
- Do not store incompatible materials together (e.g., acids and bases, flammables and oxidizers, water reactive and aqueous solutions)
- Do not store chemicals in alphabetical order, except within a grouping of compatible chemicals
- Do not store materials in a fume hood unless the hood is dedicated to that purpose
- Do not store chemicals in a domestic refrigerator or freezer

Administrative Controls:

- Prepare a map showing location of hazardous material storage, spill kit repositories, muster stations, windsock location, fueling locations and other key areas as determined in discussion with the DCC Environmental Inspector and Environmental Monitor. This map will be kept updated and posted at the Site Office.
- Keep an inventory of materials in storage and their amounts and locations
- Keep storage area separate from work areas and emergency exits.
- Ensure all stored materials are properly labeled.
- Ensure all DCC employees and subcontractors working on site are aware of emergency procedures and map.
- Ensure appropriate spill control and fire protection equipment is readily available near storage areas and in areas of product use where there is an increased risk for spills.
- Keep empty containers closed. Empty containers may contain hazardous residue.
- Restrict access to chemical storage areas to authorized personnel only. Keep highly hazardous materials under lock and key.
- Maintain good housekeeping and minimize clutter.
- Inspect storage area and containers regularly for signs of leaks, corrosion or other damage. Report damaged containers for removal by specialists.

Fuel Tanks and Fueling:

- The above applicable points apply

- As the construction duration is expected to span more than one year, all temporary fuel storage tanks will meet the design, installation, operation, maintenance, and registration requirements included in the following regulations and guidelines:
    - Environment Canada – “Storage Tank Systems for Petroleum and Allied Petroleum Products Regulations”, which includes reference to the Canadian Council of Ministers of the Environment – “Environmental Code of Practice for Storage Tanks Systems Containing Petroleum and Allied Petroleum Products”.
    - Technical Standards and Safety Authority (TSSA) – Technical Standards Safety Act – Ontario Regulation 217/01 – Liquid Fuels”.

2.3 LOCATIONS FOR HAZARDOUS MATERIAL STORAGE

Designated areas for storage of hazardous material will be identified by DCC Assistant Superintendent in discussion with the Environmental Inspection and CN Environmental Monitor based on the needs of material for use on-site. Locations of material storage may change throughout the construction period, based on the type of work being completed and the proximity to where the work will be completed.

Areas for storage of hazardous material will be clearly labelled and set back from active work areas, to prevent inadvertent accidents to occur. These areas will be identified based on setbacks from natural features (e.g., water courses, tributaries, native vegetation) and from active work zones / roadways / thoroughfares to limit accidental interactions with stored materials. This setback will also occur in designated areas at least six (6) metres away from the Project’s property line.

Only material required for ongoing equipment maintenance and operation of equipment or installation of terminal components will be kept on-site on a regular basis. Long term storage of hazardous material will not occur during construction. Quantities of hazardous material will be of quantities necessary for minor equipment repairs or upkeep. Hazardous materials stored on-site will be in designated areas with proper primary and secondary containment, in accordance with appropriate safety procedures and requirements and will be monitored by the DCC Environmental Inspector on a regular (weekly) basis during construction.

2.4 PREVENTATIVE MEASURES FOR ACCIDENTS AND MALFUNCTIONS OF HAZARDOUS MATERIAL

2.4.1 Training & Preparation

CN maintains a staff of specialists trained to respond to rail-related incidents and emergencies. These teams of Dangerous Goods Officers, Dangerous Goods Responders and Environmental Managers/Officers are strategically located throughout the CN network to assist company personnel and local emergency responders in mitigating emergency situations. These personnel have a variety of

response tools and resources available to them and will work with DCC and local incident command personnel to ensure a safe and efficient handling of an incident.

DCC will ensure all employees attend environmental education and orientation training prior to starting work on the Project. The program will include materials handling procedures, spill prevention procedures and emergency response responsibilities. All supervisory personnel will be trained in and aware of the requirements of the WHMIS program.

Hazardous materials stored on-site will be in designated areas with proper primary and secondary containment, in accordance with appropriate safety procedures and requirements.

Spill containment kits will be present on-site in designated locations where the risk of spill is deemed the greatest (e.g., refueling areas, hazardous materials storage).

A map will be prepared showing location of Site Office, equipment storage areas, laydown areas, hazardous material storage, spill kit repositories, muster stations, evacuation locations, windsock location, fueling locations, sensitive habitats to best direct response efforts and other key areas as determined necessary to identify by the DCC Environmental Inspector and Environmental Monitor. The sensitive habitats will be identified based on information gathered during the environmental assessment process, inputs from environmental managers, site specific features and construction sequencing plans. This map will be kept updated and posted at the Site Office.

2.4.2 Spill Containment

Spills of fuel or hydraulic fluids or leaks of lubricants are expected to be short-term events that will be addressed promptly. Spill containment kits are strategically placed at locations where the risk of spill is deemed the greatest and identified on a map posted at the Site Office. In the event of a spill or leak, it will be stopped, the source will be repaired, and the site cleaned up using the spill response materials on site. Contaminated material (both soil, dirty response equipment and any oily water) will be disposed of at a licensed facility.

2.4.3 Inspection

During construction, all personnel on-site will be trained to handle hazardous material, the procedures and protocols for the safe use and storage of the types of materials and the responsibility to keep the site within compliance of safe storage of the material. The storage and handling of hazardous material will be monitored throughout construction by the DCC Environmental Inspector and the Environmental Monitor.

A designated DCC employee(s) will conduct daily inspections on all equipment such as hoses, safety equipment, and containment facilities. The results of these inspections will be recorded, and any problems identified will be discussed with the Environmental Monitor and resolved immediately.

Regular audits of the facility will be carried out by the Environmental Monitor including inspection of tanks, drainage network, materials storage areas, and spill response equipment to ensure compliance and verify good housekeeping and that any leaks or spills have been appropriately addressed.

2.4.4 Emergency and Spill Response Actions

DCC will ensure:

1. All hydrocarbon spills will be immediately reported to CN using the Accidents & Malfunctions Notification Form (Appendix B).
2. When notified of a spill, the DCC Assistant Superintendent(on-site) will immediately ensure the following:
   - action is taken to control danger to human life
   - the A&M Response Map posted at the Site Office will be referred to as part of response efforts to ensure resources and response efforts are directed as appropriate
   - the CN Project Manager, CN Regional Manager and the Environmental Monitor are notified of the spill and planned response actions to be taken or those taken so far
   - the response is implemented such that necessary equipment is mobilized and measures are being implemented to control and contain the spill. The DCC Assistant Superintendent will be required to make all resources available to contain and clean-up a spill
3. The following guidelines will be followed for containment of hazardous materials:
   - the worker on-site who discovers the leak or spill shall immediately call for or seek help
   - the DCC Assistant Superintendent will report the spill to the CN Project Manager, CN Regional Manager and the Environmental Monitor. CN's designate will implement the Accidents and Malfunctions Communication Plan which includes reporting the spill to the regulatory authorities and required parties (as necessary)
   - if safe to do so, attempt to identify the product, stop the source and physically contain the spill as practical. All spills or malfunctions resulting in a leak of any sort will be reported verbally to the DCC Assistant Superintendent and DCC Environmental Inspector immediately
   - all spills containerized or otherwise will be prevented from spreading over land by using spill response equipment such as pads, booms, plastic, soil or other material
   - efforts must be made to prevent spilled product from entering waterbodies such as ditches, stormwater management ponds, streams or other wet areas. If product does enter a waterbody, efforts must be made to contain the product using spill response pads and booms. In such an event, external emergency responders with expertise in water based response will be brought in by CN
   - in the event recovery of spilled product is required from a waterbody, CN will work with the emergency response company and response authorities to determine the best method of recovery. This may include pads and booms to absorb hydrocarbons, using skimmers, excavating out non floating spilled material, or other as conditions require
   - the potential for risk to birds or other wildlife from hydrocarbons spilled to a waterbody are extremely low as response efforts will be directed to prevention of spills encountering a waterbody. If a hydrocarbon based spill does result in product on the water surface, efforts to

haze birds away from the site will be implemented using scare tactics such as flagging or metallic tape waving in the wind, scarecrows, presence of people, noise devices (if permitted), etc.

- during construction phase, the stormwater management system will be under construction. The ponds may serve as sediment collection areas as part of the ESC Plan but will not function to discharge water from the construction site. Spill response activities associated with these ponds will be developed as part of the operations phase.
- unless it is necessary to control a fire or prevent an explosion, water or fire extinguishing chemicals should not be used to prevent contamination from spreading
- traffic will be redirected to minimize travel on contaminated soils

4. Since the effects of small spot spills can generally be minimized if appropriate actions are implemented, all small spills of fuel or hazardous materials must be reported immediately to the DCC Superintendent. Small spot spills will be handled according to the following procedures:
   - suspend construction activity in the immediate vicinity of the spot spill until permission to resume the activity has been granted by the DCC Superintendent
   - the DCC Superintendent, Environmental Inspector and CN Regional Manager will determine appropriate methods to remove or restore contaminated soils. Soils and vegetation heavily contaminated with petroleum products will be disposed of at an approved facility
   - in case of a spill, the DCC Assistant Superintendent in consultation with the Environmental Inspector and CN Regional Manager shall direct further appropriate response as outlined in the Environmental Incident Reporting Procedures.
   - the DCC Assistant Superintendent and Environmental Inspector will be responsible for coordinating clean-up and collecting all pertinent information
5. All hydrocarbon spills that may have an adverse effect on the environment or are greater than 100 litres shall be reported by CN to IAAC and local authorities as identified in the Accidents and Malfunctions Communication Plan.

3.0 BULK MATERIAL

Bulk material storage will be limited to construction material required to complete the construction of the Project as construction occurs. Materials will be brought on-site as construction progresses to allow for continuous workflow. Bulk material storage will include items such as gravel, soil, corrugated steel pipe, concrete pipe, silt fence, construction signs, filter cloth, geotextile, plywood, lumber, construction barrels, rebar, granular ‘A’, granular ‘B’ and other miscellaneous items required for general construction. Fuels and associated hazardous material storage is covered in section 2.0.

An accident or malfunction involving a bulk material would be minimal in its potential environmental effect due to the type of materials being used. An incident involving bulk materials may include the loss of granular or soil material into a waterbody during the transportation process (covered under the ESC Plan), a fire associated with combustible material such as filter cloth, geotextile, lumber or plywood,

covered under fire response activities in section 4.0 or a traffic accident at the site entrance involving the delivery of goods, covered under traffic accidents in section 5.0.

3.1 BULK MATERIAL STORAGE

Regulations for bulk material storage is based on the type of material, not the storage of such material. Material brought to site for use during construction will be regulated based on the type of material and the regulations that may regulate the storage of such materials (see section 2.1 for Hazardous Material Storage).

3.2 PROCEDURES FOR HANDLING AND USE OF BULK MATERIAL

Handling and use of bulk material will be limited to construction materials for construction purposes.

The DCC Assistant Superintendent and all project managers/supervisors will ensure that product storage on-site are stored in accordance with legislated requirements.

Employees will be trained as part of the employee orientation program and storage of bulk and hazardous materials will be discussed as a tailgate topic from time to time.

3.3 LOCATIONS FOR BULK MATERIAL STORAGE

Material that is brought to site for use during construction will be located in pre-identified areas, away from moving equipment and away from natural features, such as water courses, wetlands, native vegetation or steep slopes per the ESC Plan. Material storage areas may change as construction progresses and areas will be delineated by the DCC Assistant Superintendent and will be communicated to all onsite personnel as to the location and procedure for the storage of any bulk materials on-site.

3.4 PREVENTATIVE MEASURES FOR ACCIDENTS AND MALFUNCTIONS OF BULK MATERIAL

Preventative measures for accidents and malfunctions related to bulk material storage are the same as the measures, training, containment, and inspection that are outlined above in the Hazardous Material Storage section. Additional preventative measures for bulk material storage will include a tidy and organized construction-site with ample room to maneuver equipment and material around the site as necessary. The DCC Assistant Superintendent will have advanced plans on what material is needed on-site, when the material will be delivered to the site and how that material will be used. The site will not be used for general construction storage for other construction-sites that are outside of the limits of construction of the Project.

4.0 FIRE PREVENTION

Fire prevention during the construction phase will be based on safe storage of hazardous, bulk and flammable material used on-site during the course of construction and through proper training of on-site personnel.

4.1 FLAMMABLE MATERIAL USE/FIRE AND SMOKE

The Fire Code is a regulation made under the *Fire Protection and Prevention Act*, 1997 consisting of a set of minimum requirements respecting fire safety within and around existing buildings and facilities. Flammable liquid storage is addressed in the Ontario Fire Code (O. Reg. 256/14).

4.2 PROCEDURES FOR HANDLING AND USE OF FLAMMABLE MATERIAL

- Eliminate sources of ignition.
- Safe distances between ignition sources and areas of high spill potential will be maintained within the Project.
- Bond and ground metal containers/cylinders.
- Keep flammable materials away from oxidizing materials.
- Regular maintenance and inspection of all equipment (i.e., excavators, graders, dump trucks) to avoid potential equipment malfunction.

4.3 PROCEDURES FOR FIRE AND SMOKE EMERGENCIES

In the event of a fire or smoke emergency, the emergency response protocol will be immediately initiated, including:

- Notification of CN and emergency responders, as required in the Accidents and Malfunction Communication Plan
- Implementation of appropriate fire procedures, including the need for evacuation, assessing feasibility of containment and clean-up based on environmental terrain and conditions
- An absorbent material will be applied around the fire to prevent the spread of potential hydrocarbons as the first line of defense to limit the spread of potential contaminants.
- Water or water-soluble suppressants will be used for extinguishing fires; all fire extinguishers onsite and used by emergency personnel (i.e., fire department) are environmentally friendly and approved for use in the natural environment.
- Completion of reporting and disposal procedures.

4.4 LOCATIONS FOR FLAMMABLE MATERIAL STORAGE

Handling and use of flammable material will be limited to those items specifically required during construction and will primarily include fuel for equipment and bulk materials.

Designated areas for storage of flammable material will be identified by DCC Assistant Superintendent in discussion with the Environmental Inspection and CN Environmental Monitor based on the needs of material for use on-site. Locations of storage may change throughout the construction period, based on the type of work being completed and the proximity to where the work will be completed.

A map will be prepared showing location of Site Office, equipment storage areas, laydown areas, hazardous and flammable material storage, spill kit repositories, muster stations, evacuation locations, windsock location, fueling locations, sensitive habitats to best direct response efforts and other key areas as determined necessary to identify by the DCC Environmental Inspector and Environmental Monitor. The sensitive habitats will be identified based on information gathered during the environmental assessment process, inputs from environmental managers, site specific features and construction sequencing plans. This map will be kept updated and posted at the Site Office.

The DCC Assistant Superintendent and all project managers/supervisors will ensure that product storage on-site are stored in accordance with legislated requirements.

Employees will be trained as part of the employee orientation program and storage of flammable materials will be discussed as a tailgate topic from time to time.

Areas for storage of material will be clearly labelled and set back from active work areas, to prevent inadvertent accidents to occur. These areas will be identified based on setbacks from natural features (e.g., water courses, tributaries, native vegetation) and from active work zones / roadways / thoroughfares to limit accidental interactions with stored materials. This setback will also occur in designated areas at least six (6) metres away from the Project's property line.

4.5 PREVENTATIVE MEASURES FOR ACCIDENTS AND MALFUNCTIONS OF FIRE

4.5.1 Training

1. Prior to commencement of construction, DCC will designate one or more of their staff as Fire Boss. The Fire Boss will be familiar with fire-fighting techniques and equipment and be present on-site each construction day.

2. Employees will be educated in this Plan and associated map displayed at the Site Office.

3. Personnel will be trained in the use of on-site fire-fighting equipment. Locations of fire-fighting equipment will be clearly posted.

4. Personnel will be educated that smoking is not permitted on the Project site except in specifically designated areas.

5. All Site Office trailers shall be equipped with at least one 20 pound ABC fire extinguisher (Underwriters' Laboratories of Canada rating of at least 4A40BC). Fire extinguishers shall be wall-mounted and conspicuously positioned in the vicinity of exit doors. Fire extinguishers shall be inspected at least monthly. Fire extinguishers that are not fully charged must be sent to Oakville shop for service.

4.5.2 Containment & Suppression

- Commence fire suppression measures immediately upon detection of a fire.
- Report location, size and wind direction to the Fire Boss.
- The Fire Boss will report fires to the DCC Superintendent, Contract Administrator, CN Project Manager, Environmental Monitor and local fire departments per the Accidents and Malfunctions Communication Plan.

The Fire Boss will provide the following information:

- name and phone number of the caller
- time of detection of the fire
- location of the fire
- size of the fire
- The Fire Boss will deploy fire-fighting equipment and crew to clear fire breaks, move back equipment or materials that could fuel the fire or extinguish the fire immediately. All equipment and personnel will be made available to control the fire.
- The Fire Boss will inspect the site as soon as possible and take charge of directing suppression measures.
- The Fire Boss will deploy additional crew and machinery as needed. Fire suppression measures will continue until the fire is extinguished or until otherwise notified by local fire departments.
- The Fire Boss will ensure that all burning embers are extinguished and will monitor the burn area for smoldering material.
- The Fire Boss, DCC Assistant Superintendent and Environmental Inspector will complete the Accidents and Malfunctions Notification Form.

4.5.3 Monitoring

Ongoing monitoring will occur post fire or smoke emergencies to ensure a re-ignition of materials does not occur and that spread does not occur. The Fire Boss will notify DCC Superintendent, Contract Administrator, CN Project Manager, Environmental Monitor when any fire or smoke emergency is over, and the area or equipment will be cleaned up as appropriate. Monitoring of environmental effects from any accident will occur by the Environmental Monitor (or regulatory body) until the effects have been determined to be adequately addressed.

5.0 TRAFFIC ACCIDENT

Traffic accidents associated with construction could occur within the Project limits of construction or at the access points where construction traffic will enter and exit the Project site.

5.1 TRAFFIC ACCIDENTS

Accidents that may occur onsite during construction will be managed by DCC in accordance with workplace health and safety laws and best practices for the construction sector. All contractor personnel operating equipment and vehicles onsite will be trained and licensed as per their ability to operate the machinery in which they are working.

Accidents that could occur on public roads, surrounding the project site, will be managed consistent with applicable transportation laws.

5.2 PROCEDURES FOR HANDLING TRAFFIC ACCIDENTS ASSOCIATED WITH CONSTRUCTION

Accidents associated with moving vehicles/equipment within the Project site or vehicles accessing the Project site will be handled as per the step by step process including:

- Notification per the Accidents & Malfunctions Communication Plan; including notification of the DCC Assistant Superintendent, Contract Administrator, CN Project Manager, Environmental Monitor, 911 emergency services and others as needed per the Accidents and Malfunctions Communication Plan.
- Isolation of the accident location including flagging as needed
- Emergency response to individuals injured
- Spill response to any materials spilled or leaked as outlined in section 2.4 and fire suppression response as outlined in section 4.5

- Complete an internal investigation of the accident and lessons learned
- Communication with personnel to understand the root cause to be able to mitigate and determine additional safeguards or training opportunities that may be necessary to avoid future accidents.

5.3 PREVENTATIVE MEASURES FOR ACCIDENTS AND MALFUNCTIONS OF TRAFFIC ACCIDENTS

Preventative measures for accidents and malfunctions associated with traffic accidents include the following:

- Maintain internal access roads and ensure sightlines at the access points are clear and dirt/dust does not accumulate on the public roads
- Limit speed limits within the project site to less than 30 km/hr, including posted signage
- Preplanned travel lanes will be coordinated for movement of onsite equipment and vehicles throughout the various phases of construction
- Vehicles and equipment will be maintained in good, clean working order and will be regularly inspected for maintenance needs
- Personnel will be trained and certified in machinery operations in which they are operating
- Traffic laws (speed, vehicle size and roadway controls) will be adhered to by all personnel, onsite and off the project site
- Restrict access to the project site to only construction and project personnel

5.3.1 Monitoring

CN Police Services (CNPS) will have periodic presence on-site during construction of the Project. CNPS will complete periodic safety blitzes during the course of construction to monitor vehicular activity in the vicinity of the access points, and on-site.

6.0 DERAILMENT

Transportation Safety Board (TSB) defines derailment as “any instance where one or more wheels of rolling stock have come off the normal running surface of the rail.”. Derailment was assessed in the Environmental Assessment as minor in nature based on low speeds within the Project. During construction, materials for the Project may be brought in via railcars associated with a worktrain while rail traffic will continue on the mainline, passing adjacent to the Project site. This section covers response activities associated with a derailment as part of Project construction; response activities for a derailment that occurs outside of the Project is covered under a separate CN plan.

6.1 REGULATIONS FOR DERAILMENT

The Transportation Safety Board of Canada (TSB) is the responsible body for federally regulated railways and is guided by various industry standards, and policies created to help ensure that investigations are conducted in systematic, thorough and unbiased manner. Under the Transportation Safety Board Regulations railways are required to report railway occurrences including derailments.

6.2 PROCEDURES FOR HANDLING DERAILMENT SCENARIOS

In the unlikely event of a derailment of railcars associated with a worktrain delivering materials for the Project construction phase, DCC and CN will immediately implement the emergency response process D.I.S.T.

6.2.1 "D" Discovery

The CN Train Conductor or CN Supervisor of the work train will immediately determine whether a derailment such as a wheel off the rail has occurred and will proceed to stop all movement at the site and notify Rail Traffic Control (RTC) who will report the derailment to the TSB as required. The RTC will implement CN's notification process.

DCC, Contract Administrator and CN Supervisor of the work train will secure the site, determine the significance of the derailment and provide detailed information to the RTC for furtherance to responders.

6.2.2 "I" Initial Response

CN senior staff from numerous departments including Transportation, Engineering, Mechanical, Environment, etc. as appropriate will respond and begin the initial response phase including establishing incident comment, determining action items needed and developing a response plan that addresses the site specific details. The response is actioned as appropriate including spill response, re-railing of equipment or removal of damaged equipment from the site.

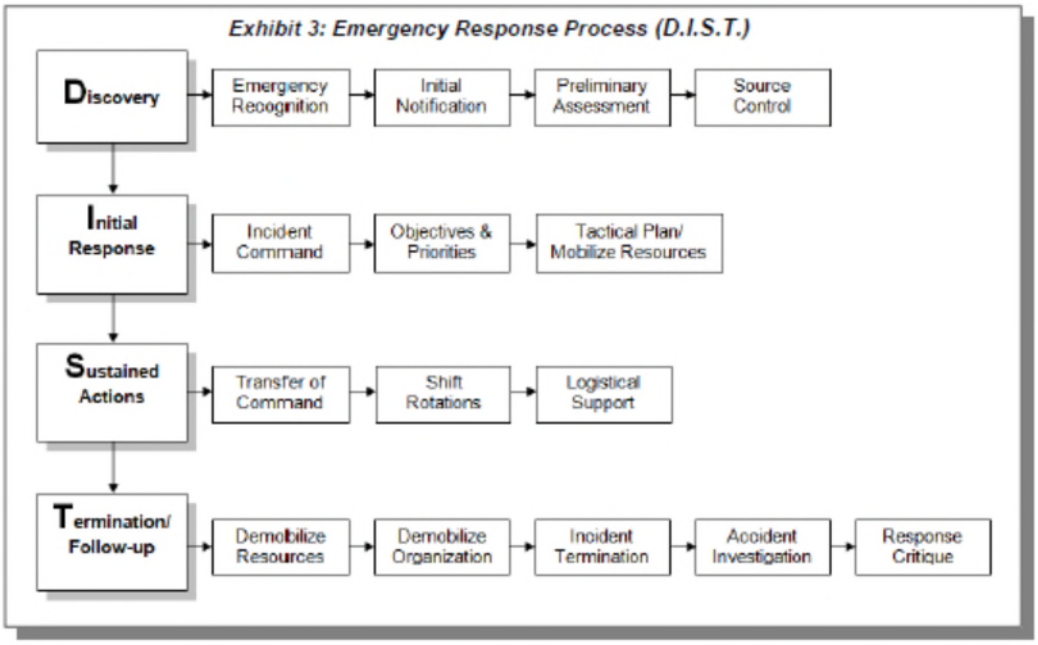
6.2.3 "S" Sustained Actions

If an incident requires many days of response, a sustained action will occur including CN bringing in additional resources to support staffing and logistical support. This may include bringing in additional heavy equipment, specialized equipment and relieving staff so that a 24 hour response can be supported. During this phase, more in-depth spill response activities may be initiated as necessary such as soils and groundwater sampling or removal of contaminated soil to approved disposal facilities.

Once the derailment and response has been effected, the response moves into the termination and follow-up phase.

6.2.4 "T" Termination and Follow-up

During this phase, the remaining site activities are concluded including removal of equipment and people. If necessary, long term environmental monitoring would begin if/as necessary. An incident investigation by CN and other Agencies (if deemed necessary) would occur, including corrective actions to prevent a re-occurrence.



6.3 PREVENTATIVE MEASURES FOR ACCIDENTS AND MALFUNCTIONS OF DERAILMENT

To minimize the potential for a derailment and any associated spills, the following suite of measures will be implemented by CN and DCC:

- Equipment will be inspected and properly maintained to avoid potential malfunction
- Infrastructure will be regularly maintained as per Transport Canada requirements
- Track speed will be observed
- National and international engineering codes and standards will be followed including the Manual for Railway Engineering
- Flagging personnel will be onsite for the safe movement of work trains, vehicles and equipment adjacent to or when crossing active rail tracks where necessary.
- Appropriate setbacks from rail tracks will be maintained to avoid debris or construction material being put near operating tracks.

7.0 WORKER ACCIDENT OR INJURY

7.1 LEVEL OF URGENCY

Response procedures are specific to the type of emergency that may occur on-site. These are outlined below.

In the event of an emergency requiring emergency response services or response equipment, all work in proximity must cease and equipment be cleared, if safe to do so, to facilitate access. A person shall be directed to the site access point with the nearest public road to escort and direct emergency services as necessary.

Extreme caution should be taken when products, which can pose an environmental, health or safety hazard, are potentially involved. At no time shall work resume until the area is declared safe. In certain circumstances, it is possible to take immediate actions safely to minimize the impact, including:

- Confining a release to CN property.
- Isolating affected area by controlling access or denying entry and activating the Accident and Malfunction Communication Plan.

The actions taken in the initial minutes of an emergency are critical. When an emergency occurs, THE **FIRST PRIORITY IS ALWAYS LIFE SAFETY**. The second priority is the stabilization of the incident.

7.2 PROJECT FIRST AID SERVICES

DCC will employ trained staff in Standard First Aid and CPR at the Project site and ensure compliance with applicable worker health and safety requirements.

Training will be conducted yearly by members of Second Link Training. The DCC Health & Safety department will be responsible for the review of trained personnel and the scheduling of initial first aid training and re-certification training prior to Project start.

The DCC Assistant Superintendent will ensure a First Aid Treatment Record is located at the First Aid Station. All treatment records must be retained for future reference with all other Project Specific documentation.

The DCC Assistant Superintendent will periodically inspect First Aid Treatment Records to ensure they are being completed properly.

Workers will ensure they complete the First Aid Treatment Record and notify the project team when using the First Aid Kit.

7.2.1 APPOINTMENT OF TRAINED PERSONNEL

The DCC Assistant Superintendent will be responsible for and ensure they employ, as a minimum, at least one member who holds a valid Standard First Aid Certificate during each work period.

All site supervisors in conjunction with the Health and Safety department will review existing trained personnel and make recommendation to training additional staff if/as necessary.

7.2.2 STRUCTURE OF THE TRAINING PROGRAM

Initial Training will be structured based on the requirements of the Standard First Aid Training program which consists of two days of classroom training and includes hands on demonstration. This training program must include the Adult CPR component

Re-certification training will be structured based on the requirements of the Standard First Aid Training re-certification program. The re-certification program must include the Adult CPR component.

7.2.3 FREQUENCY OF TRAINING

Training will occur annually. Training sessions will be based on Initial, Standard First Aid Training and Re-certification training.

All personnel certified as a First Aider will be required to renew their training every three years in accordance with Standard First Aid training protocols.

7.2.4 RECORD KEEPING

Records will be maintained by DCC at head office in Oakville in the health and safety department. Records of trained personnel will also be maintained on-site.

7.2.5 FIRST AID SUPPLIES

First aid supplies and other emergency response equipment shall meet or exceed the Workplace Safety and Insurance Act in consideration of the number of workers employed on the Project.

First aid kits and other emergency response equipment will be conspicuously located within the project office trailer. A treatment memorandum shall accompany all first aid kits.

Contents of first aid kits shall be inspected at least once per month. Missing, damaged, or deteriorated items shall be promptly replaced.

At locations where a large number of persons are employed (e.g., 200 +/-), where an ambulance or physician services cannot be obtained within 15 minutes, it is recommended that a first aid room be provided and that the first-aid room be equipped with the 36-unit kit, several blankets, a portable stretcher, one couch and two chairs.

If such a room is provided, it must be secured and operated only under the direct supervision of a certified first aider.

7.2.6 FIRE EXTINGUISHERS

All project office trailers shall be equipped with at least one 20 pound ABC fire extinguisher (Underwriters' Laboratories of Canada rating of at least 4A40BC). Fire extinguishers shall be wall-mounted and conspicuously positioned in the vicinity of exit doors. Fire extinguishers shall be inspected at least monthly. Fire extinguishers that are not fully charged must be sent to Oakville shop for service.

7.2.7 COMMUNICATION

Post a copy of the "First Aid Requirements" in a conspicuous location.

A copy of this standard will be distributed electronically and communicated to all management staff, supervisors, and employees through toolbox talks, site meetings and Joint Health & Safety Committee meeting minutes posted at all job site trailers.

7.3 MEDICAL EMERGENCIES

7.3.1 Injury or Medical Emergency

Personal Injury or Medical Illness

Injury or illness, regardless of severity, must be reported immediately to the DCC Assistant Superintendent, CN Project Manager, Contract Administrator, and as outlined in the Accidents and Malfunctions Communication Plan. In the case of federally regulated employees, CN will report all hazardous occurrences as required to Labour Canada.

In the event of a medical emergency or severe illness:

Assess scene safety

- The first person on the scene should ensure the scene is free of hazards (e.g., hazardous materials, sources of hazardous energy, fire or flammable materials, violent person, etc.)
- Do not move a severely or suspected back injured person unless there is a life-threatening danger.
- Do not put yourself in undue risk.

Major Medical/Illness Emergency

Call 911 and notify the operator for medical assistance. Be prepared to provide the nature of the emergency, exact location including the street address of the closest access road into the construction-site, your name and phone number that you can be reached at.

Follow the 911 operator's instructions. Do not hang up until instructed.

Send a person to meet emergency vehicles at the closest access road into the construction-site that was provided to the 911 operator to bring them quickly to injured.

If you are the first person rendering first aid, gather as much information as possible to share with first responders providing medical assistance. If by yourself or no one is first aid trained, call for help. One or more people should remain with the injured until emergency services personnel arrive.

First aid kits should be available at designated location(s) within the construction-site. Retrieve a first aid kit and implement first aid measures consistent with the nature of the medical emergency and your capability.

Seek assistance from people formally trained in providing emergency first aid. If the person displays the following signs and symptoms, immediately call for an ambulance:

- Severe bleeding
- Severe burns
- Breathing problems
- Chest pain
- Loss of consciousness
- Severe pain
- Broken bones
- DO NOT MOVE the injured or ill person. Keep the victim warm and comfortable.
- Notify the Construction Supervisor. If necessary, call 911 and notify them of the emergency, giving as much information as possible.
- Use a radio or cell phone and call for First Aid / CPR assistance if required.

Minor Medical Emergency

For less serious medical situations, (e.g., cuts, bites, pinches, contusions, scrapes, strains, etc.), retrieve a first aid kit from a designated location within the construction-site and implement first aid measures consistent with the nature of the medical emergency or your capability. Seek assistance from additional trained first aid providers as needed.

Non-Emergency Medical/Illness

In the event that an employee requires non-emergency medical attention for an illness during the workday, it is important to remember that Occupational Medicine Clinics can often provide an employee with care more quickly or at a more convenient location than a local hospital. Please consider whether

transport or referral to one of the identified clinics is appropriate. (See attached list in the emergency contact numbers section). Clinical providers understand the type of work, physical demands, and other aspects of general construction and are the preferred provider, when applicable.

If the person is not an employee, render assistance as requested. Remember to advise the visitor to notify their employer immediately to follow their employer's directions.

7.4 FATALITIES

Any emergencies that are beyond minor will be handled through calls to 911 for emergency services. Any accidents that result in a fatality will be reported to DCC Superintendent, CN Project Manager, Contract Administrator, following the Accidents and Malfunctions Communication Plan and as per the protocols under applicable health and safety requirements.

7.5 MISSING PERSONS

If it is suspected that someone from the Project is unaccounted for or an unassociated person is thought to be missing within the Project boundary limits, the DCC Assistant Superintendent, Contract Administrator must be notified.

- The DCC Assistant Superintendent will issue a radio notice to all employees seeking the whereabouts of the individual and advise all employees to be observant and notify if anyone or anything of note is found.
- A Supervisor(s) will drive the Project area looking for the missing individual while trying to contact them via the radio and their contact phone number.
- If unable to locate, the DCC Assistant Superintendent will contact CN Project Manager and CN Police who may advise to contact 911. Directions as provided by CN Police and/or local emergency services will be adhered to.

8.0 EVACUATIONS

Construction-site Evacuation

Follow these procedures immediately whenever notified that an incident/emergency exists requiring evacuation of the construction-site:

- If the area requires evacuation, sound the alarm system (if available), air horns, or other means to warn everyone to evacuate. (Sound the evacuation signal during planned drills so employees are familiar with the sound.)
- Follow broadcasted instructions provided on the radio
- If none are provided, check the windsock for wind direction (see Use of Windsocks).

- Exit upwind or crosswind. Never position yourself downwind/downhill of a release.
- WALK directly to the closest safe assembly area.
- DO NOT delay evacuation to collect personal belongings before exiting.
- Ensure the safe evacuation of visitors or other people in the construction-site who may not be familiar with the surroundings.
- Comply with supervisor's instructions.
- Do not smoke. Extinguish all smoking materials including e-cigarettes.
- Designate a person at the assembly site to collect all the names of the personnel gathered at the assembly point. When emergency services arrive, give this list to them for personnel accountability. Ask each other if everyone made it out of the area. If someone is missing, immediately notify a supervisor and if emergency services are on scene, notify them immediately.
- DO NOT RE-ENTER EVACUATION AREAS UNTIL INSTRUCTED TO.
- Help clear crossings/roadways for arrival of emergency responders.

Use of Windsocks in Evacuation

When an incident occurs, use windsocks to assist you in moving into a safe direction, uphill and upwind.

The preferred windsock color is yellow and should measure 18 inches x 6 feet. Windsocks by policy are illuminated in all locations. Other colors may be used as long as they can be clearly defined from red, which is reserved for airports.

9.0 EXPLOSIVE DEVICES AND BOMB THREATS

- Immediately, leave the area
- If the threat is received over the phone, log the conversation. Make note of the caller's demeanor, accent/or instructions
- Deny entry to others into the area
- Do not use any electrical devices such as radio or cell phone
- Call 911 once you are at least 500 feet away from the suspected package or device
- Notify CN Police at 1-800-465-9239
- Contact DCC Assistant Superintendent and provide all available information
- NEVER DISRUPT/DISTURB A SUSPICIOUS OBJECT

- Keep this information as confidential as possible
- Follow instructions given by CN Police and Local Authorities
- Evacuate the area and quickly move to a designated assembly location
- Account for personnel on-site
- DO NOT attempt to re-enter the area until advised by the authorities

10.0 NATURAL HAZARDS

10.1 FLOOD SAFETY

This section explains what actions to take when you receive a flood watch or warning alert from the National Weather Service for your local area and what to do before, during and after a flood.

Basic Safety Tips:

- Turn Around, Don't Drown - Avoid walking or driving through floodwaters.
- Do not drive over bridges that are over fast-moving floodwaters. Floodwaters can scour foundation material from around the footings and make the bridge unstable.
- If there is a chance of flash flooding, move immediately to higher ground.
- If floodwaters rise around your car but the water is not moving, abandon the car and move to higher ground. If the water is moving, do not leave the car.
- If possible, avoid working or parking along streams, rivers, and creeks during heavy rainfall. These areas can flood quickly and with little warning.

Before a Flood:

- Stay informed with your local news for the latest forecast
- Determine whether your home or work location is in an area likely to flood
- Learn which roads are likely to flood and find an alternate route
- Communicate your findings to other co-workers and peers
- If you might be evacuated, pack all necessary items so you're ready at a moment's notice
- Be proactive - leave before the flooding starts to avoid being stranded

During a Flood:

- Stay informed with your local news for the latest forecast

- Avoid floodwaters - get to higher ground if you are in an area that is subject to flooding
- Follow evacuation orders and heed warning signs
- If you have time before you evacuate, disconnect utilities
- If you are in danger, call 911 and advise them of your location and contact information
- Keep all essential electronics charged if possible

After a flood:

- Stay informed with your local news for the latest forecast and the safety of your drinking water
- Avoid floodwaters - standing water can hide chemicals, power lines, and sharp debris
- Heed road closure and cautionary signs
- Wait for the all-clear before returning to an area that was impacted by flooding
- Watch for animals who have lost their homes during flooding, they may seek shelter in on-site structures and aggressively defend themselves

The details describing flood advisories are below.

Flood Advisory: Be Aware: A Flood Advisory is issued when a flood event warrants notification but is less urgent than a warning. Advisories are issued for conditions that could cause a significant inconvenience, and if caution is not exercised, could lead to situations that may threaten life and/or property.

Flood Watch: Be Prepared: A Flood Watch is issued when conditions are favorable for a specific hazardous weather event to occur. It does not mean flooding will occur, but it is possible.

Flood Warning: A Flood Warning is issued to inform the public of flooding that poses a serious threat to life and/or property. A Flood Warning may be issued hours to days in advance of the onset of flooding based on forecast conditions.

Flash Flood Warning: A Flash Flood Warning is to inform the public, emergency management and other cooperating agencies that flash flooding is in progress, imminent, or highly likely. Flash Flood Warnings are urgent messages as dangerous flooding can develop very rapidly, with a serious threat to life and/or property. A Flash Flood Warning is issued minutes to hours in advance of the onset of flooding.

If you come to an area that water is covering, you may not know the depth of the water or the condition of the road or ground underneath. This is especially true at night when your vision is more limited. Whether driving or walking any time you come to a flooded area, turn around and avoid the area. A mere 6 inches of fast-moving floodwater can knock over an adult, 12 inches of rushing water can carry away a small car, while 2 feet of rushing water can carry away most vehicles. It is NEVER safe to drive or walk into floodwaters.

10.2 STORM EVENTS

Appropriate personnel, materials and planning shall be maintained at all times during all weather conditions. Considerations must be made given to the specific site locations, tasks performed, and equipment used.

Winter Weather Hazards

As transition from fall to winter occurs, we are faced with ongoing weather-related hazards such as:

- Frozen/slippery ground conditions especially in the early mornings due to the freeze thaw cycle and throughout the day due to changing temperatures.
- Unexpected or sudden snow or ice storms due to changes in weather conditions and temperatures.
- Needing to acclimatize to the winter season; dress appropriately, stay hydrated, and to avoid injury by ensuring the body adapts gradually and avoid sudden movements.

Planning

- Review work schedule to accommodate and allow extra time for project components
- Review/identify snow pile storage locations taking into consideration exclusion fencing, sensitive areas, travel/work corridors, snow melt direction and waterbodies prior to snow plowing
- Review onsite snow clearing equipment and material, and acquire additional equipment as required
- Use of grit for traction is permissible. No salt or chloride based solutions or material will be used within the Project
- Develop a plan for continuous housekeeping or schedule it for a specific time
- Include site-specific guidelines at the jobsite orientation or Pre-Work Hazard Assessment describing everyone’s responsibilities for keeping the site clean
- Segregate designated walkways and vehicle roadways
- Maintain crosswalks and pedestrian pathways where they cross the jobsites
- Ensure barriers are maintained and signage is visible
- Assess if street lighting is sufficient or if additional task lighting is required for early morning/late afternoon work. Any lighting must be shone on the area requiring illumination. No lights will be directed off or away from the Project site

Prevention – Avoid slip and fall injuries

- Staff to evaluate weather conditions, ground conditions throughout the day and be aware of potential slip and fall conditions. Remove debris where possible
- Install and maintain grit/sand bins (no salt allowed) at key locations such as around office entrances, washrooms, access/egress paths, around parking lots and where vehicles are parked, to frozen roads, walkways, stairs, and around entrances to offices, site trailers, and job boxes
- Wear safety footwear designed for cold/slippery conditions
- Avoid assigning work that involves climbing ladders or working from heights when possible

Worker Protection

- Be aware of and react to changing workplace conditions
- Make sure workers are properly dressed for the conditions and are prepared for changing conditions. The outer layer should be windproof and if possible, waterproof to keep out dust, dirt, wind, and moisture
- Advise workers to be aware of weather conditions in advance
- In severe weather conditions (low temperatures, high winds, etc.), work/rest schedules should be adjusted to allow workers to warm up when required

Winter Driving Hazards

- Wet roads turning to icy roads due to sudden temperature changes. Slippery road conditions, packed snow, ice/black ice, and frost. Other vehicles driving erratically
- Wildlife crossing the road
- Limited visibility – white outs, snow squalls, etc.

Winter Vehicle Prevention

- Conduct a Pre-trip inspection. Turn all lights on and keep fuel tank full on vehicles. Clear ice/snow off all windows and steps prior to driving. Maintain proper fluid levels such as windshield washer fluid and engine oil. Ensure wiper blades are in good condition and snow brushes available. Clear off all vehicle sensors and camera lenses
- Slow down and drive according to road and weather conditions
- Maintain a safe distance behind other vehicles
- Keep a roadside assistance kit in your vehicle and ensure cell phones are charged in the event of an emergency

- Ensure proper tire tread and inflation
- Check with shop for winter/all weather tire program with DCC vehicles
- Ensure steps and ladders on equipment and vehicles are clear of snow and ice
- Use ballast in the bed of pickup trucks to stabilize and provide additional traction
- Ensure that ballast is secured by tying down or bracing

Vehicle Parking

- Park vehicles in areas where snow removal has occurred, and grit/sand (no salt is permissible) has been applied. Be mindful of areas between vehicles that may not have been cleared and made safe
- Check for secure footing when exiting your vehicle and know your surroundings
- Drive slowly in parking lots and job sites and look out for pedestrians. Follow speed limits
- Use G.O.A.L. (Get Out And Look) before reversing
- Checking around your vehicle before reversing and look for things such as pedestrians, road hazards, any object that cannot be seen from the mirrors or back up cameras
- Pick “pull-through” spots in parking lots or back into the parking spot
- Park defensively by avoiding areas heavily crowded by other parked cars or equipment
- Do not be distracted by or use devices while driving

Responsibility

- The supervisor or designate will ensure that adequate winter preparedness equipment is available on-site and all personnel is trained on these plans
- Workers must follow these plans in regards to actions, equipment, materials and site planning
- Participate in PWHA to understand specific tasks and hazards that may arise due to winter weather conditions and activities

Training

Tailgates will be distributed to notify DCC staff of pertinent information

1. DCC - Winter Precautions
2. DCC - Spring / Winter Weather – Hazards

3. DCC – G.O.A.L. – Get Out And Look

4. CRH North Division Educational Alert – Slip, Trip and Fall Awareness and Prevention

5. CRH North Division Education Alert – Winter Weather Hazards

10.3 SEVERE WEATHER EVENTS

In the event of severe weather, the DCC Assistant Superintendent will monitor the weather radio, computer or other sources for current information and advise all employees of the situation.

A “Tornado Watch” means atmospheric conditions are such that tornadoes may develop. A tornado watch is generally issued 4 to 6 hours before conditions may occur. If a tornado watch is issued, the DCC Assistant Superintendent will notify all personnel.

During a watch all construction work will continue, keeping alert for any signs or weather change. The danger signs to look for are severe thunderstorms, hail, roaring noise, a funnel cloud or combination of the above. A company radio should be used to monitor instructions and provide information to and from the Supervisor.

If a tornado watch is in effect, the DCC Assistant Superintendent will notify all personnel on duty of the existing watch. Crews should have already familiarized themselves with the procedures to be followed in the event of being notified of a Watch being in effect, they should be alert to the weather conditions and to sites of shelter in their immediate work area.

In the event an employee spots a funnel cloud, the DCC Assistant Superintendent should be notified immediately.

A “Tornado Warning” means a tornado has been sighted or verified by the National Weather Service.

If a tornado warning is issued, the DCC Assistant Superintendent will listen to weather reports and immediately announce this information to all radio channels keeping personnel updated. During a tornado warning, activities should stop. All employees should immediately follow instructions for their safety and be ready to take shelter. A distinct warning signal should be sounded and everyone should move to shelter.

During a tornado, if inside:

- Go to the best available shelter, time permitting/accessible.
- Take cover under a solid table.
- If no table, go into a corner, crouch down.
- Protect your head.

- Curl up with your knees against your upper body.

During a tornado, if outside:

- If outside, go to a suitable shelter ASAP.
- If not possible, some prioritized suggestions are:
- Find a place noticeably lower than the roadway. (i.e. culvert)
- Lie face down if possible.
- Cover head with hands, jacket…
- Get in a vehicle. Put seat belt on. Keep head below the windows. Cover head.

Once the severe weather has passed, crews should notify the DCC Assistant Superintendent if they have any injuries and/or if a tornado has passed through their work area. If a tornado has passed through the work area, employees should not return to the area nor move their equipment until the area is inspected for hazardous conditions. If it appears that the tornado did not strike the area, employees returning to their duties should be alert for possible damage including power lines, leaking equipment, or any other conditions that could affect their safety and immediately report findings to the DCC Superintendent.

During severe storms, lightening is usually present. When this occurs, avoid open areas. Do not be the tallest object in the area. Stay away from isolated tall trees, towers or utility poles. Lightning tends to strike the taller objects in an area. Stay away from metal conductors such as wires or rail. Metal does not attract lightning, but lightning can travel long distances through it.

10.4 EARTHQUAKES

An earthquake is the sudden, rapid shaking of the earth, caused by the breaking and shifting of subterranean rock as it releases strain that has accumulated over a long time. Initial mild shaking may strengthen and become extremely violent within seconds. Additional earthquakes, called aftershocks, may follow the initial earthquake. Most are smaller than the initial earthquake but larger magnitude aftershocks also occur. Earthquakes may cause items to become dangerous projectiles; cause buildings to move off foundations or collapse, damage utilities, roads and structures such as bridges and dams, or cause fires and explosions. They may also trigger landslides, avalanches and tsunamis.

During an earthquake

- Drop down onto your hands and knees so the earthquake doesn't knock you down. Drop to the ground (before the earthquake drops you!)
- Cover your head and neck with your arms to protect yourself from falling debris
- If you are in danger from falling objects, and you can move safely, crawl for additional cover under a sturdy desk or table

- If no sturdy shelter is nearby, crawl away from windows. Stay away from glass, windows, outside doors and walls, and anything that could fall, such as light fixtures or furniture
- Stay where you are until the shaking stops. Do not run outside. Do not get in a doorway as this does not provide protection from falling or flying objects, and you may not be able to remain standing
- If you are outdoors when the shaking starts, move away from buildings, streetlights, and utility wires. Once in the open, “Drop, Cover, and Hold On.” Stay there until the shaking stops

After an earthquake

- When the shaking stops, look around. If the building is damaged and there is a clear path to safety, leave the building and go to an open space away from damaged areas
- If you are trapped, do not move about or kick up dust
- If you have a cell phone with you, use it to call or text for help
- Assemble at the designated meeting place and re-assess the situation

11.0 COMMUNICATION PROTOCOL

See Accidents and Malfunctions Communication Plan document for specific details and contact information for advising of accidents and malfunctions to regulatory agencies, Town, Region, Aboriginal communities, potentially affected parties and Impact Assessment Agency of Canada.

12.0 ACCIDENTS AND MALFUNCTION DEFINITIONS

For the purposes of this Plan, CN defines Accidents and Malfunctions as follows:

12.1 ACCIDENTS:

a) An occurrence leading to a release, as defined by the Federal Canadian Environmental Protection Act, of a contaminant to the natural environment, that is abnormal in quality or quantity in light of the circumstances of the release. Releases will fall under the following two types:

   1. Minor Release – Minor Releases include situations where a release occurs as a result of the planned construction activities at the Site, where a contaminant does not pose a potential threat to groundwater, surface water, wetlands, environmentally significant areas, and does not have the potential to migrate outside the Project Area Construction Limits.

2. Reportable Release – A Reportable Release includes those situations, where a release occurs as a result of the planned construction activities at the Site and includes unplanned incidents, where a contaminant impacts the natural environment, and poses a potential threat to groundwater, surface water, wetlands, environmentally significant areas, and/or has the potential to materially damage, contaminate or harm the environment outside of the project construction limits.

12.2 MALFUNCTIONS:

Malfunctions include those situations where a piece of equipment or asset fails to operate or function as designed, and includes normal wear and tear of components, including hydraulic systems and their associated parts, hoses and fittings. Malfunctions may result in either a minor release or a reportable release but can also include instances that do not cause direct impact to the natural environment.

13.0 REPORTING

Incidents that require emergency services shall be dealt with immediately by DCC by calling 911. A subsequent call must be made by the DCC to CN to advise them of the emergency.

All other incidents must be reported via phone to the CN Project Manager, Contract Administrator and Environmental Monitor immediately, regardless of size or scope providing as much information as possible. Notification of the event according to the Accidents and Malfunctions Communication Plan and response activities will be initiated by CN with the assistance of DCC and other resources as the incident warrants.

Within 24 hours of an accident or malfunction, DCC must complete an Accident and Malfunction Notification Form (Appendix B) and circulate that form to CN.

13.1 REGULATORY REPORTING

13.1.1 Reporting of Railway Occurrences

All railway occurrences such as derailments will be reported by railway employees to CN RTC. The RTC will report as required to the TSB. Any railway employee injury will be reported by CN to Employment and Social Development Canada (ESDC) as required under the Canada Labour Code.

13.1.2 30 day Report to IAAC

CN will submit a written report to IAAC no later than 30 days after the day on which the applicable accident or malfunction occurred. The report shall include:

- A detailed description of the applicable accident or malfunction and of any adverse environmental effects;
- A description of the measures that were taken by CN to mitigate any such adverse environmental effects;
- Any written comments provided by the Mississauga of the Credit First Nation, Six Nations of the Grand River, Huron Wendat and potentially affected neighbors; and advice from relevant authorities received with respect to the accident or malfunction, its adverse environmental effects and the measures taken by CN to mitigate those adverse environmental effects;
- A description of any residual adverse environmental effect and any modified or additional measures required by CN to mitigate residual adverse environmental effects; and
- Details concerning the implementation of the accident and malfunction response plan referred to in condition 14.3.

13.1.3 Submission of 90 day Report to IAAC

CN will submit a written report to IAAC no later than 90 days after the day on which the applicable accident or malfunction occurred. This report will include a description of the changes made to avoid a subsequent occurrence of the accident or malfunction, and of the modified or additional measure(s) implemented by CN to mitigate and monitor residual adverse environmental effects and to carry out any required progressive reclamation, taking into account the information submitted in the written report pursuant to condition 14.5.4. The report will include all additional written comments from the Mississauga of the Credit First Nation, Six Nations of the Grand River, Huron Wendat and potentially affected neighbours and advice from relevant authorities received by CN since the comments and advice referred to in the Accidents and Malfunctions Communication Plan were received by CN.

13.1.4 Submission of Annual Report to IAAC

CN will submit an annual report to IAAC pursuant to condition 2.11 which will include a summary of the Accidents and Malfunctions that are identified in section 9.1.

APPENDIX A

Key Personnel

ACCIDENTS AND MALFUNCTIONS RESPONSE PLAN - CONSTRUCTION

The following is a list of key personnel on the project. In the event of an emergency, please refer to the Accidents and Malfunctions Communication Plan.

CELL PHONE NUMBERS & EMAIL ADDRESSES			
Dufferin Construction Company			
	Superintendent		
	Assistant Superintendent		
	Construction Coordinator		
	Environmental Inspector / Sr. Quality Control Administrator		
	Safety Advisor		
	Fire Boss		
CN Personnel			
	Project Manager		
	Regional Manager – Environmental Impact		
	Regional Manager – Field Ops		
	CN Police		
	Public Inquiry		
Stantec Personnel			
	Environmental Monitor		
AECOM Personnel			
	Contract Administrator		

APPENDIX B

Accident & Malfunction Notification Form

Incident Analysis Report

G-14
FORM
Revision : 2018-08-01

Section 1: Identification of the Facts												
Person Involved							Position/SAP #					
Status	Select an item						Employer					
Division	Select an item		Site/Job #	Type it in		Age		Years of Service				
Date of Incident	Date			Time		Start Time of Shift						
Reporting Date	Date			Time		End Time of Shift						
Weather	☐ Sun	☐ Clouds	☐ Rain	☐ Wind	☐ Snow	☐ Ice	Temperature (°C)					
Witness	☐ Yes	☐ No	Name/Phone Number:									
Appendices	☐ Statement (person involved)		☐ Statement (witness)		☐ Additional Info		☐ Police Report					
	☐ Photos	☐ Sketch	Other:									

ANALYSIS OF THE FACTS						
Type	☐ Near-miss	☐ Property Damage	☐ Injury	☐ Spill	☐ Theft	☐ 3rd Party

	Equipment Involved (fixed or mobile)	# Registration/Unit	Description of Damages/ Theft	Cost of repair
1				
2				
3				

# Driver's License	1		2		3	

INJURY DETAILS							
Description	Select an item	Body Part	Select an item	Side	☐ Right	☐ Left	

First Aid (internal)	☐ Yes	☐ No	If so, describe treatment:
Medical Consultation (external)	☐ Yes	☐ No	If so, add clinic & doctor name and contacts:
Recordable Incident	☐ Yes	☐ No	Consult with Safety Dept. prior to completion.
Ambulance contacted	☐ Yes	☐ No	

IN CASE OF SPILL			
Spilled Product	Select an item	If other:	
Quantity Spilled (in liters or cubic meters)		Radius of Dispersion (in meters)	
Impact on Environment	☐ Yes	☐ No	If so, what impact?
Intervention (cleaning)	☐ Yes	☐ No	If so, by who?

Intervention Equipment Used	Quantity Used	Recovered Material	Quantity Recovered
Select an item		Select an item	
Select an item		Select an item	

	Start Time of Spill	End of Spill	Start of Intervention	End of Intervention
Time				

Incident Analysis Report

G-14
FORM
Revision : 2018-08-01

Section 2: Details of the Event

STORY

PHOTOS

Incident Analysis Report

G-14
FORM
Revision : 2018-08-01

Section 3: Human Performance

ERROR PRECURSOR

Unfavorable conditions that creates an inconsistency between the task and individual (ex. time pressure, high work load, repetitive task, lack or unclear standards, distractions, unexpected equipment conditions, individual capabilities)

Task	Environment	Individual	Human Nature
☐ Complex Information	☐ Change in Work Shift	☐ Attitude/Values/Personality	☐ Assumptions
☐ Interpretation Required	☐ Condition of Equipment	☐ Communication	☐ Biases
☐ Multiple Tasks	☐ Departure from Routine	☐ Competencies	☐ Complacency
☐ Overtime	☐ Directives	☐ Experience	☐ Limited Perspective
☐ Repetitive Task	☐ Displays/Interface	☐ Familiarity with the Task	☐ Memory
☐ Routine Task	☐ Distractions/Interruptions	☐ Health Issues/Fatigue	☐ Risk Perception
☐ Time Pressure	☐ Equipment/Tools	☐ Knowledge	☐ Skills
☐ Unclear Goals	☐ Position of Equipment	☐ New Work Method	☐ Shortcuts
☐ Unclear Standards	☐ Unexpected System Response	☐ Problem Resolution Skills	☐ Stress
Other:			

HUMAN PERFORMANCE CONSIDERATIONS

PERFORMANCE MODES

1 of 3 modes a person uses to process information related to one's level of familiarity and attention given to a specific activity. Skill-based-highly practiced actions, Rule-based-following procedures, Knowledge-based-planning actions

☐ Knowledge-based	☐ Rule-based	☐ Skill-based

beginner ----------> expert

EXISTING DEFENSES

Existing Defenses - Has employee been trained or is following policies, procedures, industry best practices....Examples; Reversing Equipment, Site Conditions. Engineered defenses-seat belts, guarding, warning systems Legal requirements-speed limits, stop signs

Existing Defenses	Efficiency	Explanation
	Select an item	
	Select an item	
	Select an item	
	Select an item	
	Select an item	

RECOMMENDATIONS

Recommended Defenses	Responsible	Due Date
		Date
		Date
		Date
		Date
		Date

ROOT CAUSE ANALYSIS

Root-cause analysis is often the factor that identifies the main cause of the incident. Examples; Was the worker

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distracted? If yes, why was the worker distracted? Was a safe work procedure being followed? If not, why not? Were safety devices (PPE, guarding, warning signage, safety devices such reverse alarms etc.) in order? If not, why not? Was the worker trained? If not, why not?

	How did the incident happen? Eg; Worker using a knife cut his hand.
	Response to How…Why? Eg; Worker failed to select proper PPE for task – Cut resistent gloves.
1	How did the incident happen?
	Response to How…Why?
2	How did the incident happen?
	Response to How…Why?
3	How did the incident happen?
	Response to How…Why?

Section 4: Approvals		
Position	Name	Date
Immediate Supervisor		Date
Department involved in Event Analysis OH&S / Environment / Transport		Date
Workers' Safety Representative or JHSC If required		Date
Prepared by		Date
Approved by		Date

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APPENDIX A: (Complete if applicable)

Vehicle/Equipment			
Year and Make:		License #:	
Owner's Name:		Owner's Address:	
Insurance Name and #:		Estimated Cost of Damage:	
Describe Damage(s) to vehicle/ Equipment(s):			

Any injuries sustained by the occupant(s) of the other vehicle?		
Name:	Contact:	Injuries:

Were the Paramedics called:	Choose an item.	Were the Police called:	Choose an item.
Name of Officer:		Badge #:	
Incident Report #:		Detachment:	

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Utility			
Type of utility:	Choose an item.	**Was utility located:**	Choose an item.
If yes, explain what went wrong. If no, why wasn't it:			
Were utility locates obtained:	Choose an item.	**Name of person who attended:**	
Date of locate:		**Locate #:**	
Were applicable utility owners notified of the damage:	Choose an item.	**Name of utility owner:**	
Time of notification:		**Time arrived:**	
Duration of repair:		**# of people involved in repair:**	
Equipment involved in repair:			